

REMARKS/ARGUMENTS

This Amendment is being filed in response to the Office Action dated August 5, 2010. Reconsideration and allowance of the application in view of the amendments made above and the remarks to follow are respectfully requested.

Claims 17-30 are pending in the Application. Claims 27-29 were previously withdrawn. Claims 17, 27 and 30 are independent claims.

In the Final Office Action, claims 17, 18, 20-22, 24, 25 and 30 are rejected under 35 U.S.C. §103(a) over U.S. Patent No. 5,660,170 to Rajan ("Rajan") in view of U.S. Patent No. 5,134,995 to Gruenke ("Gruenke"). Claims 19 and 26 are rejected under 35 U.S.C. §103(a) over Rajan in view of Gruenke and further in view of U.S. Patent No. 5,551,419 to Froechlich ("Froechlich"). Claim 23 is rejected under 35 U.S.C. §103(a) over Rajan in view of Gruenke and further in view of U.S. Patent No. 5,868,133 to DeVries ("DeVries"). These rejections are respectfully traversed. It is respectfully submitted that claims 17-26 and 30 are allowable over Rajan in view of Gruenke alone and in view of any combination of Froechlich and DeVries for at least the following reasons.

Claim 17 is amended to clarify that "a pressure of the flow of gas to the subject" is increased "after the sudden increase in the breathing rate to the determined average intrinsic positive end-expiratory pressure". This is explained in the specification at page 1, line 28 to page 2, line 14 and at page 10, line 18 to page 11, line 22. The specification addresses sudden increases in the breathing rate of subjects when an event or crisis occurs or the rate of exercise is significantly increased. As explained therein, faster

breathing shortens the breathing cycle, particularly the expiratory part. As the expiratory part shortens, less time is available for the lungs to empty. As shown in the present application FIG. 4, during a normal breathing rate, see cycles 1-3, expiration ceases at point Y right at the end of the cycle when the inspiration of the next cycle commences. However, as seen in cycles 4-10, although the expiration has ceased at the point Y, the inspiration cannot commence until the intrinsic pressure has dropped to the x-axis, at point Z. Therefore, the subject is unable to draw air during the period between points Y and Z also marked by adjacent vertical lines C and D.

It is undisputed, as admitted at page 3 of the Office Action and in the previous Office Action that Rajan is silent about "an average intrinsic positive end-expiratory pressure over the monitored plurality of breathing cycles" as recited in claim 17. Yet, the Office Action maintains that at col. 6, lines 46-52 Rajan discloses respiratory gas flow that is averaged and utilized in determining the opening pressure. However, knowledge of averaged respiratory gas flow does not suggest what increase is necessary in "a pressure of the flow of gas to the subject, after the sudden increase in the breathing rate, to the determined average intrinsic positive end-expiratory pressure such that the pressure of the flow of gas delivered to the subject allows the subject to commence drawing in the gas immediately at the commencement of the inspiratory part of each breathing cycle", as recited in amended claim 1. Similarly, nothing in the remainder of Rajan teaches, discloses, or suggests increasing a pressure of the flow of gas to the determined average intrinsic positive end-expiratory pressure, of the breathing cycle to correspond to the average intrinsic PEEP, as substantially recited in amended claim 1.

Gruenke describes measuring and averaging "a continuous positive pressure at the inhalation set point pressure for the first eight breaths of a patient." This falls short of teaching or suggesting monitoring "characteristics associated with intrinsic pressure of breathing cycles of the subject before a sudden increase in a breathing rate" and determining "an average intrinsic positive and-expiratory pressure over the monitored plurality of breathing cycles based on the characteristic output of the monitor" as recited in claim 1.

Thus, it is respectfully submitted that the apparatus of claim 17 and the method of claim 30 are not anticipated or made obvious by the teachings of Rajan and Gruenke. For example, Rajan in view of Gruenke does not teach, disclose or suggest, an apparatus that amongst other patentable elements, comprises (illustrative emphasis added) "a monitor configured to monitor characteristics associated with intrinsic pressure of breathing cycles of the subject before a sudden increase in a breathing rate and to store the monitored characteristics as a characteristic output; and a controller configured to determine an average intrinsic positive end-expiratory pressure over the monitored plurality of breathing cycles based on the characteristic output of the monitor, and control the gas flow generating system to increase a pressure of the flow of gas to the subject, after the sudden increase in the breathing rate, to the determined average intrinsic positive end-expiratory pressure such that the pressure of the flow of gas delivered to the subject allows the subject to commence drawing in the gas immediately at the commencement of the inspiratory part of each breathing cycle." as recited in claim 17 and as substantially recited by each of claims 27 and 30.

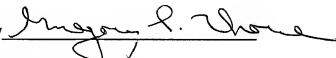
Froechlich and DeVries are introduced for allegedly showing elements of the dependent claims and as such, do nothing to cure the deficiencies in each of Rajan and Gruenke.

Based on the foregoing, the Applicant respectfully submits that independent claims 17, 27 and 30 are patentable and notice to this effect is earnestly solicited. Claims 18-26 and 28-29 respectively depend from one of the independent claims and accordingly are allowable for at least this reason as well as for the separately patentable elements contained in each of the claims. Accordingly, separate consideration of each of the dependent claims is respectfully requested.

In addition, Applicant denies any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, the Applicant reserves the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

Applicant has made a diligent and sincere effort to place this application in condition for immediate allowance and notice to this effect is earnestly solicited.

Respectfully submitted,

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